

VARIABLE GAIN AMPLIFIER

Patent number: JP7147523
Publication date: 1995-06-06
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Classification:
- **international:** H03G3/30; H03F1/30; H03F3/45; H03G3/10; H03G5/16
- **european:**
Application number: JP19940171668 19940630
Priority number(s):

Also published as:
 EP0632583 (A1)
 US5477191 (A1)
 EP0632583 (B1)

Abstract of JP7147523

PURPOSE: To stably operate an amplifier against the temperature fluctuation over a wide range of control voltages by using a simpler inexpensive circuit.

CONSTITUTION: The variable gain amplifier has a differential input stage connected to the first and second terminals of a voltage generator through first and second field effect transistors M1 and M2 the gate terminals of which are connected to a first common control terminal VG1. The differential input stage is further connected to two bipolar transistors Q23 and Q24 connected between the first terminal of the voltage generator through two resistors R1 and R2 and the second terminal of the generator through third and fourth field effect transistors M3 and M4 . In addition, the third and fourth field effect transistors M3 and M4 have gate terminals connected to a second control terminal VG2 and the collector terminals of the transistors Q23 and Q24 form output terminals for the amplifier.

